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### Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

- 1. (Original) A method for a computer to present information to a user on one of a plurality of available output devices, the method comprising:
  - (a) monitoring the user to collect information about a current state of the user;
  - (b) modeling a current user condition based on the collected information by,

determining a current level of privacy desired by the user, the level of privacy indicating a group of people allowed to perceive information presented by the computer;

determining a current scope of audience desired by the user, the scope of audience indicating how many people are intended to perceive information presented by the computer; or determining a current cognitive load of the user, the cognitive load indicating ability of the user to devote attention to the computer;

- (c) receiving output information to be presented to the user; and
- (d) presenting the output information in a manner consistent with the modeled current user condition by,

selecting one of the plurality of output devices such that information presentation capabilities of the selected output device support the determined current desired level of privacy, the determined current desired scope of audience, and the determined current cognitive load; and

presenting the output information to the user on the selected output device, so that the presentation of information by the computer satisfies the modeled current user condition.

- 2. (Original) The method of claim 1 wherein the modeling of the current user condition is additionally based on collected information related to a surrounding environment.
- 3. (Original) The method of claim 1 wherein the monitoring of the user is performed by sensors worn by the user.

- 4. (Original) The method of claim 1 wherein the monitoring of the user is performed by sensors remote from the user.
- 5. (Original) The method of claim 1 wherein the collected information includes information about a current physiological state of the user.
- 6. (Original) The method of claim 1 wherein the collected information includes information about current activities of the user.
  - 7. (Original) The method of claim 1 wherein the computer is a wearable computer.
- 8. (Original) The method of claim 1 wherein an operating system of the computer performs the method.
- 9. (Original) The method of claim 1 wherein the output information is received from a distinct program executing on the computer.
- 10. (Original) The method of claim 1 wherein the output information is received from another computer.
- 11. (Original) The method of claim 1 wherein the output information is generated by the computer during the monitoring or the modeling.

# 12-13. (Canceled.)

14. (Original) The method of claim 1 wherein the available output devices include two display devices with different information presentation capabilities regarding level of privacy, scope of audience, and cognitive load, and wherein the selected output device is the display device whose information presentation capabilities best match the modeled current user condition.

- 15. (Original) The method of claim 1 wherein information can be presented with the available output devices to the user via at least two user senses, and wherein the selecting includes determining the user sense via which the output information will be presented.
- 16. (Currently Amended) A computer-implemented method for presenting output information to a user, the method comprising:

receiving information about a modeled property of the user which affects appropriateness of presenting output information to the user, the modeled user property indicating capabilities of the user for receiving presented output information such that a physical disability of the user prevents the user from perceiving some types of presentations of information;

selecting an output device capable of presenting the output information in accordance with the modeled user property; and

presenting the output information on the selected output device in accordance with the modeled user property such that the presenting is in a manner perceivable by the user.

- 17. (Original) The method of claim 16 wherein the received information includes information related to a current condition of the user, and including modeling the user property based on the received information.
- 18. (Original) The method of claim 17 including monitoring the user to collect the received information.
- 19. (Original) The method of claim 16 wherein the received information includes information related to a surrounding environment, and including modeling the user property based on the received information.
- 20. (Original) The method of claim 19 including monitoring the surrounding environment to collect the received information.

# 21. (Canceled.)

- 22. (Original) The method of claim 16 including before the presenting of the output information, receiving the output information.
- 23. (Original) The method of claim 22 wherein an information provider transmits information to various computers within a transmission range of the information provider, wherein the method is performed by a transportable computer transported by the user, wherein the user transports the transportable computer within the transmission range, and wherein the received output information is the transmitted information.

## 24-29. (Canceled.)

- 30. (Original) The method of claim 16 wherein the modeled user property is an indication of ability of the user to devote attention to the presenting of the output information.
- 31. (Original) The method of claim 30 wherein the ability of the user to devote attention is influenced by information being received by the user via one user sense, and wherein the presenting of the output information is selected to be via a distinct user sense.
- 32. (Original) The method of claim 30 including deferring the presenting of the output information when the ability of the user to devote attention is low.
- 33. (Original) The method of claim 30 wherein the indication of the ability of the user to devote attention is an estimate of an amount of attention devoted by the user to other current activities.
- 34. (Original) The method of claim 16 wherein the modeled user property is a preference of the user for an amount of people to perceive presented information.
- 35. (Original) The method of claim 34 wherein the selected output device includes a range of information presentation capabilities, wherein others can perceive information presented using some of the information presentation capabilities, and including selecting those

information presentation capabilities to be used for the presenting when the modeled user property indicates that the others are within the amount of people to perceive the output information.

- 36. (Original) The method of claim 34 wherein the selected output device includes a range of information presentation capabilities, wherein others nearby cannot perceive information presented using some of the information presentation capabilities, and including selecting those information presentation capabilities to be used for the presenting when the modeled user property indicates that the others exceed the amount of people to perceive the output information.
- 37. (Original) The method of claim 16 wherein the modeled user property is a preference of the user for how to receive sensitive information.
- 38. (Original) The method of claim 37 wherein the selected output device includes a range of information presentation capabilities, wherein others can perceive information presented using some of the information presentation capabilities, and including selecting those information presentation capabilities to be used for the presenting when the modeled user property indicates that sensitivity of the output information allows the others to perceive the output information.
- 39. (Original) The method of claim 37 wherein the selected output device includes a range of information presentation capabilities, wherein others nearby cannot perceive information presented using some of the information presentation capabilities, and including selecting those information presentation capabilities to be used for the presenting when the output information is sufficiently sensitive that the modeled user property indicates that the others are not allowed to perceive the output information.

40-46. (Canceled.)

- 47. (Original) The method of claim 16 wherein a plurality of output devices are available to present information via distinct senses of the user, and wherein the selecting of the output device includes determining a user sense which is capable of presenting the output information in accordance with the modeled user property.
- 48. (Original) The method of claim 16 wherein the selected output device has only a single physical mechanism for presenting the output information to the user.
- 49. (Original) The method of claim 16 wherein the computer performing the method is transportable by the user, wherein fixed output devices become available to the computer when the user transports the computer near the fixed output devices, and wherein the selected output device is a fixed output device.
- 50. (Original) The method of claim 16 wherein a user computer performing the method is transportable by the user, and wherein the user computer can communicate with other devices within a transmission range of the user computer.
- 51. (Original) The method of claim 50 wherein the user computer communicates with another computer, and wherein the selected output device is an output device of the another computer.
- 52. (Original) The method of claim 50 wherein the received information is from one of the other devices.
- 53. (Original) The method of claim 50 wherein the output information to be presented is received from one of the other devices.
- 54. (Original) The method of claim 16 including after the presenting of the output information, revising the modeled user property based on the presenting.

55-56. (Canceled.)

57. (Currently Amended) A method for a computer to model properties of a user for use when presenting output information to the user, the method comprising:

receiving information about a current state of the user, the received information including multiple pieces of information that are inconsistent as to a current value for a property of the user to which the pieces of information relate; and

for at least one of a plurality of properties of the user which affects appropriateness of presenting output information to the user, modeling the property of the user by

determining whether the received information relates to the property; and

when the received information relates to the property, determining a current value for the property based on mediating the inconsistencies of the received pieces of information, the user property affecting appropriateness of presenting output information to the user such that 5 so that the determined current values of the modeled user propertyies can be used for presenting output information to the user in an appropriate manner.

58. (Original) The method of claim 57 including:

receiving output information to be presented in accordance with the determined current values of the modeled user properties; and

presenting the output information to the user in accordance with the modeled user properties.

- 59. (Original) The method of claim 57 including when a program has output information to present to the user, supplying the determined current values of the modeled user properties to the program so that the output information can be presented to the user by the program in accordance with the modeled user properties.
- 60. (Original) The method of claim 59 including when determined current values of the modeled user properties change, automatically supplying the changed current values to the program so that the output information can be presented in accordance with the changed current values of the modeled user properties.

- 61. (Original) The method of claim 57 wherein the determining of the current value for the property is based on a plurality of modeling rules.
- 62. (Original) The method of claim 61 wherein when the user is in a specified class of users, using modeling rules specialized for the specified class.
- 63. (Original) The method of claim 61 wherein when the user is not in a predetermined class of users, using default modeling rules.
- 64. (Original) The method of claim 61 including updating the modeling rules based on the received information so as to better model the user.
- 65. (Original) The method of claim 61 wherein the computer can communicate with another computer, and including receiving from the another computer new modeling rules to be used for the determining of the current value.
- 66. (Original) The method of claim 57 wherein the computer can communicate with another computer, the another computer able to obtain information about the user via input devices of the another computer, and wherein the received information is obtained information about the user from the another computer.
- 67. (Original) The method of claim 57 wherein the computer can communicate with another computer, and including receiving from the another computer information about properties of the user to be added to the modeled user properties, the added properties distinct from the modeled user properties.
- 68. (Original) The method of claim 57 wherein the computer can communicate with another computer, and including receiving from the another computer a value for one of the modeled user properties to be stored as the determined current value for the one property.

- 69. (Original) The method of claim 57 wherein the plurality of properties of the user are modeled based on received information to create a model of a user condition.
- 70. (Original) The method of claim 57 including monitoring the user to obtain the received information.

### 71. (Canceled.)

72. (Currently Amended) The method of claim 57 A method for a computer to model properties of a user for use when presenting output information to the user, the method comprising:

receiving information about a current state of the user and receiving wherein a rating indicating quality of the received information; is received, and

for at least one of a plurality of properties of the user which affects appropriateness of presenting output information to the user, modeling the property by

determining whether the received information relates to the property; and

when the received information relates to the property, determining a current value for the property based on the received information in such a manner that wherein the quality rating is reflected in the determined current values for the property. ies which relate to the received information.

so that the determined current values of the modeled user properties can be used for presenting output information to the user in an appropriate manner.

# 73. (Original) The method of claim 57 including:

determining that a current value for a user property is needed for presenting output information to the user; and

obtaining information related to the user property to allow determination of the current value.

74. (Currently Amended) A method for presenting output information to a user of a computer, the computer able to output information to a first display device and a second display

device, the first and second display devices having different display characteristics, the method comprising:

selecting either the first display device or the second display device based on a predicted preference of the user, the predicted preference being a predicted mental state of the user indicating on which of the display devices the user would prefer to receive the output information, the selecting based at least in part on a mapping between the predicted mental state and the display devices that indicates which of the display devices are suitable for presenting information in accordance with various predicted mental states; and

presenting the output information on the selected display device consistently with the predicted preference.

- 75. (Original) The method of claim 74 including predicting a current value of the preference before the selecting.
- 76. (Original) The method of claim 75 including monitoring the user to obtain information for the predicting.

# 77. (Canceled.)

- 78. (Currently Amended) The method of claim 77-74 including: after the presenting, monitoring reaction of the user to the presenting; and revising the mapping based on the monitored reaction to enhance user reaction to future presentations of information.
- 79. (Original) The method of claim 74 wherein the computer and the display devices are designed to be carried by the user.

80-83. (Canceled.)

84. (Currently Amended) A computer-readable medium containing instructions for presenting output information to a user, by performing a method comprising:

receiving information about at least one modeled characteristic of the user which affects appropriateness of presenting output information to the user; that indicates capabilities of the user for receiving presented output information such that a physical disability of the user prevents the user from perceiving some types of presentations of information;

selecting an output device capable of presenting the output information in accordance with the modeled user characteristic; and

presenting the output information on the selected output device in accordance with the modeled user characteristic such that the presenting is in a manner perceivable by the user.

- 85. (Original) The computer-readable medium of claim 84 wherein the at least one modeled characteristic is based on collected information related to the user.
- 86. (Currently Amended) The computer-readable medium of claim 85 wherein the eomputer system is method further controlled by includes monitoring the user to obtain the collected information.

87-88. (Canceled.)

89. (Currently Amended) A computer system for presenting output to a user, comprising:

an output device selector module that receives information about a modeled property of the user which affects appropriateness of presenting output to the user <u>based on a physical disability of the user that prevents the user from perceiving some types of presentations of information</u>, that selects an output device capable of presenting the output in accordance with the modeled property, and that presents the output on the selected output device in accordance with the modeled property in a manner perceivable by the user.

90. (Original) The computer system of claim 89 further comprising the selected output device.

- 91. (Original) The computer system of claim 89 further comprising a model of a current condition of the user, the model including a plurality of user properties including the modeled property.
- 92. (Original) The computer system of claim 89 wherein the computer system further comprises a user characterization module that generates the modeled property based on collected information related to the user or to a surrounding environment.
- 93. (Original) The computer system of claim 92 wherein the user characterization module further monitors the user or the surrounding environment to obtain the collected information.

### 94. (Canceled.)

- 95. (Original) The computer system of claim 89 wherein the selected output device includes a range of information presentation capabilities, and further including a format module that formats the output before the presenting, the formatting to select information presentation capabilities of the selected output device to be used such that the selected information presentation capabilities are consistent with the modeled property.
- 96. (Original) The computer system of claim 89 wherein the received information is current physiological information about the user indicating a health condition, and wherein the presenting of output is to another person to alert the another person of a health problem detected from the current physiological information.
- 97. (Original) The computer system of claim 89 wherein the received information is current physiological information about the user indicating a health condition, and wherein the presenting of output is to administer medical care for the health condition.

98. (Currently Amended) A data structure stored in the memory of a computer for use in presenting output information to a user, the data structure containing modeled information regarding the user, the data structure used by:

extracting information from the data structure including a current value of a modeled ability of the user to currently receive the output information and/or of a modeled desire of the user of how to currently receive the output information, the extracted information reflecting a physical disability of the user that prevents the user from perceiving some types of presentations of information;

selecting an output device capable of presenting the output information in accordance with the extracted information; and

presenting the output information on the selected output device in accordance with the extracted information such that the presenting is in a manner perceivable by the user.

- 99. (Original) The data structure of claim 98 including a defined interface to receive updates to the modeled information from another computer.
- 100. (Original) The data structure of claim 98 wherein the data structure further contains a plurality of modeling rules useful for determining based on received information about the user a current value for the modeled ability or desire.
- 101. (Original) The data structure of claim 100 wherein the modeling rules are useful for mediating inconsistencies between multiple pieces of information which relate to the modeled ability or desire so as to determine the current value.
- 102. (New) The method of claim 16 wherein the modeled user property further indicating capabilities of the user for receiving presented output information such that a mental disability of the user prevents the user from perceiving some types of presentations of information.
- 103. (New) The method of claim 16 wherein the physical disability of the user is permanent.

- 104. (New) The method of claim 16 wherein the physical disability of the user is temporary.
- 105. (New) The method of claim 104 wherein the temporary physical disability is intermittent.
- 106. (New) The method of claim 16 wherein the physical disability of the user is due to cognitive impairment of the user.
- 107. (New) The method of claim 16 wherein the physical disability of the user is due to a mental disability of the user.
- 108. (New) The method of claim 57 wherein the received information includes information related to a surrounding environment.
- 109. (New) The method of claim 108 including monitoring the surrounding environment to collect the received information.
- 110. (New) The method of claim 57 wherein an information provider transmits information to various computers within a transmission range of the information provider, wherein the computer is a transportable computer transported by the user within the transmission range, and including receiving the output information as at least part of the transmitted information.
- 111. (New) The method of claim 57 wherein the user property is an indication of ability of the user to devote attention to presenting of the output information.
- 112. (New) The method of claim 111 wherein the ability of the user to devote attention is influenced by information being received by the user via one user sense, and wherein the presenting of the output information is selected to be via a distinct user sense.

- 113. (New) The method of claim 111 including deferring the presenting of the output information when the ability of the user to devote attention is low.
- 114. (New) The method of claim 111 wherein the indication of the ability of the user to devote attention is an estimate of an amount of attention devoted by the user to other current activities.
- 115. (New) The method of claim 57 wherein the user property is a preference of the user for an amount of people to perceive presented information.
- 116. (New) The method of claim 115 including selecting an output device capable of presenting the output information in accordance with the user property.
- 117. (New) The method of claim 115 including, when the user property indicates that other people are within the amount of people to perceive the output information, selecting information presentation capabilities of an output device having a range of information presentation capabilities such that the other people can perceive information presented using the selected information presentation capabilities.
- 118. (New) The method of claim 115 including, when the user property indicates that other people exceed the amount of people to perceive the output information, selecting information presentation capabilities of an output device having a range of information presentation capabilities such that the other people cannot perceive information presented using the selected information presentation capabilities.
- 119. (New) The method of claim 57 wherein the user property is a preference of the user for how sensitive information is to be presented.
- 120. (New) The method of claim 119 including, when the user property indicates that sensitivity of the output information allows other people to perceive the output information, selecting information presentation capabilities of an output device having a range of information

presentation capabilities such that the other people can perceive information presented using the selected information presentation capabilities.

- 121. (New) The method of claim 119 including, when the output information is sufficiently sensitive that the user property indicates that other people are not allowed to perceive the output information, selecting information presentation capabilities of an output device having a range of information presentation capabilities such that the other people cannot perceive information presented using the selected information presentation capabilities.
- 122. (New) The method of claim 57 including determining a user sense which is capable of receiving the output information in accordance with the user property.
- 123. (New) The method of claim 57 wherein the computer performing the method is transportable by the user, wherein fixed output devices become available to the computer when the user transports the computer near the fixed output devices, and including selecting a fixed output device for use in presenting information to the user.
- 124. (New) The method of claim 57 wherein the computer is transportable by the user, and wherein the computer can communicate with other devices within a transmission range of the computer.
- 125. (New) The method of claim 124 wherein the computer communicates with another computer, and including selecting an output device of the another computer for use in presenting information to the user.
- 126. (New) The method of claim 124 wherein the received information is from one of the other devices.
- 127. (New) The method of claim 124 wherein the output information to be presented is received from one of the other devices.

- 128. (New) The method of claim 57 including after the presenting of the output information, revising the modeled user property based on the presenting.
- 129. (New) The method of claim 57 wherein the user property indicates capabilities of the user for receiving presented output information.
- 130. (New) A computer-readable medium containing instructions for modeling properties of a user for use when presenting output information to the user, by performing a method comprising:

receiving multiple pieces of information about a current state of the user that are inconsistent as to a property of the user; and

modeling the property of the user by determining a current value for the property based on mediating the inconsistencies of the received pieces of information, the user property affecting appropriateness of presenting output information to the user such that the determined current value of the modeled user property can be used for presenting output information to the user in an appropriate manner.

- 131. (New) The computer-readable medium of claim 130 wherein the instructions when executed on computing system cause the computing system to perform the method.
- 132. (New) A computing system for modeling properties of a user for use when presenting output information to the user, comprising:

a characterization module configured to receive inconsistent information about a current property of the user and to model the user property by determining a current value for the property based on mediating the inconsistent information, the user property affecting appropriateness of presenting output information to the user such that the determined current value of the modeled user property can be used for presenting output information to the user in an appropriate manner; and

an information presentation module configured to present the output information in a manner consistent with the determined current value.

- 133. (New) The method of claim 74 including monitoring the user to collect information for use in predicting the mental state of the user.
- 134. (New) The method of claim 74 including predicting the mental state of the user so as to identify an ability of the user to currently receive the output information and/or a desire of the user of how to currently receive the output information.
- 135. (New) The method of claim 134 wherein the predicting is based at least in part on information collected by monitoring the user.
- 136. (New) The method of claim 74 including receiving the output information from an application program executing on the computing system.
- 137. (New) The method of claim 74 wherein the first and second display devices are worn by the use and have distinct information presentation capabilities.
- 138. (New) A computer-readable medium containing instructions for presenting output information to a user of a computing system, the computing system able to output information to first and second display devices having different display characteristics, by performing a method comprising:

selecting the first and/or second display device based on a predicted preference of the user, the predicted preference being a predicted mental state of the user indicating a display device on which the user would prefer to receive output information, the selecting based at least in part on a mapping between the predicted mental state and the display devices that indicates which of the display devices are suitable for presenting information in accordance with various predicted mental states; and

presenting the output information on the selected display devices in a manner consistent with the predicted preference.

- 139. (New) A computing system for presenting output information to a user, comprising:
  - a first display device a first set of display characteristics;
- a second display device having a second set of display characteristics distinct from the first set; and

an output device selection module configured to select the first and/or second display device based on a predicted preference of the user, the predicted preference being a predicted mental state of the user indicating display devices on which the user would prefer to receive output information, the selecting based at least in part on a mapping between the predicted mental state and the display devices that indicates which of the display devices are suitable for presenting information in accordance with various predicted mental states.

140. (New) The computing system of claim 139 further comprising a information presentation module configured to present output information on the selected display device consistently with the predicted preference.